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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/747,226

02/26/2001

Arnout Imhof

1279-237D/09804152

4056

167. 7590 02/09/2004

FULBRIGHT AND JAWORSKI L L P  
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EXAMINER

MARCANTONI, PAUL D

ART UNIT

PAPER NUMBER

1755

25

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/747,226

Applicant(s)

IMHOF ET AL.

Examiner

Paul Marcantoni

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/11/03 ~~3/11/03~~ RCE filing.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Applicant's petition to revive the abandoned application was granted and is thus acknowledged.

Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van T Teen et al. '590

*Note: All prior references utilized have been withdrawn.*

Van T Teen teaches a macroporous ceramic support with a microporous layer (see claims). Applicants even admit for the record that this is a macroporous ceramic suitable as a micro-filtration support (see page 3 of REMARKS in 2/10/03 amendment and response by applicants). Further, Van T Teen teaches a porous support with pore sizes of between 0.1 microns and 50 microns or even greater. This range still overlaps the applicants' range of 0.5 to 5 microns. Overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art. It is also noted that Van T Teen teaches that the pore size, porosity, and permeability of the microporous layer can be adjusted by varying the sintering temperature of the coated memberane and by varying the particle size and the type of suspended particles. One of ordinary skill in the art would have understood that the applicants more narrow but still overlapping range of 0.5 to 5 microns would have been achievable based upon the teaching of Van T Teen because it is within the within the person of ordinary skill in the art's control.

**Response:**

The applicants argue Van Tveen '590 is directed to microporous materials and not to macroporous materials. Van Tveen teaches that the *average* pore diameter can

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be 1 micron which still overlaps the pore diameter claimed by applicants for their invention in the range of 0.5 um to 5 um. Overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373 or if unavailable to SPE Mark Bell at 571-272-1362.



Paul Marcantoni  
Primary Examiner  
Art Unit 1755